

# **AGO**

***ENVIRONMENTAL ELECTRONICS LTD***

Product brochure:

## **ARCTIC FOX 3HP WINCH DATASHEET**

OVERVIEW

The Arctic Fox is a powerful, fully-enclosed, one-of-a-kind winch built from surplus parts. It is also a demonstration platform for some of A.G.O.'s latest winch instrumentation and control R&D projects.

This is a unique model. Only one is available as-is and no duplicates will be made. Contact A.G.O. to review suitability of regularly-available standard winches for your application if this winch is no longer available or if it cannot handle your specific application.



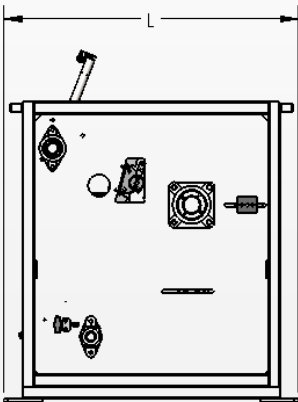
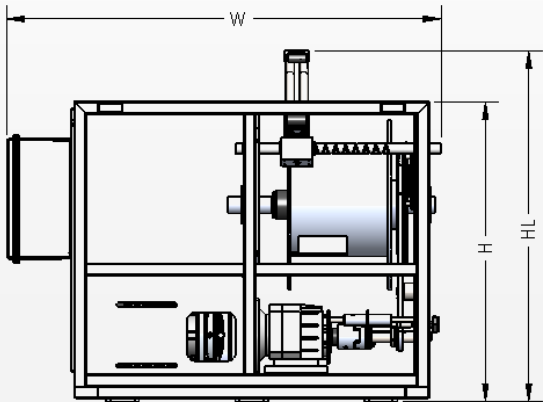
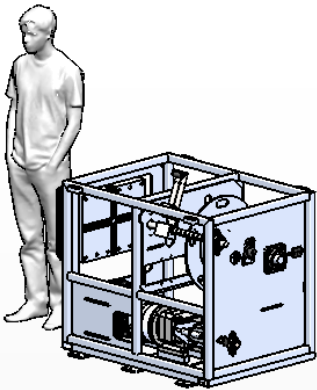
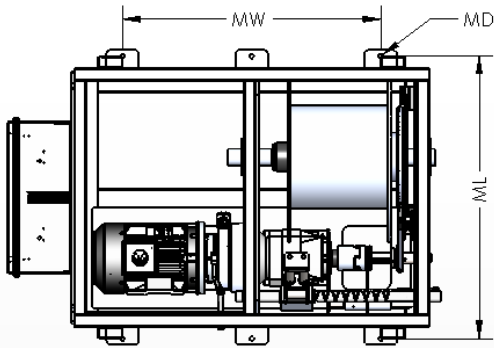
Rated capabilities

	Core	Full drum
Line speed	0 to ~150 ft/min (45 m/min)	0 to ~220 ft/min (67 m/min)
Maximum line pull	530 lbs (240 kg)	330 lbs (150 kg)
Electric brake hold	1903 lbs (863 kg)	1202 lbs (545 kg)

Please review the sample applications that have been validated against this winch's capabilities on the following page. Check with A.G.O. to verify winch's capabilities against other cable and payload combinations before using winch with other cables or payloads. The winch may be suitable for use with cables and/or payloads other than those listed on the following page.

Nominal dimensions

Weight	550 lbs 249 kgs
L	37 in 94 cm
W	52 in 132 cm
H	37 in 94 cm
HL	44 in 112 cm
ML	35 in 88.9 cm
MW	32 in 81.28 cm
MD	For 1/2" bolts For M12 bolts



Exact dimensions may vary slightly from nominal. Overall weight varies depending on winch's specific drivetrain and feature configuration. Images shown may not represent all features included.

# SAMPLE APPLICATIONS

This is not an exhaustive list of the only applications this winch could be used with. Other payload and cable combinations may be within this winch's capabilities as well. Please check other unlisted payload and cable combinations with A.G.O. to see if this winch would be able to handle them.

These tables are not a reference for what cables and lengths are compatible with different payloads. Please refer to your payload manufacturer for validation on what cables and lengths can be used with your payload.

A.G.O. does not stock any cables or payloads.

0.257" (6.53mm) A304874 armoured Rochester coax cable		Tow speed
Up to 500m length	EdgeTech 4205 side scan sonar (with no accessories)	5 knots
	EdgeTech 4200-SP/MP side scan sonar (with no accessories)	
	EdgeTech 4125 side scan sonar (optionally with depressor wing OR magnetometer)	
0.252" (6.4mm) A310255 armoured Rochester 1-conductor cable		Tow speed
Up to 800m length	Sea-Bird SBE 19plusV2 CTD	2 knots
Up to 500m length	General Oceanics Model 1015R rosette w/ 6X 1.7L bottles	
	General Oceanics Model 1018 rosette w/ 6X 5L bottles	
	Sea-Bird SBE 55 ECO rosette w/ 3X 4L bottles and SBE 19plusV2 CTD	
Up to 300m length	General Oceanics Model 1018 rosette w/ 12X 1.2L bottles	
	General Oceanics Model MLW1018 rosette w/ 6X 6L bottles	
	Sea-Bird SBE 55 ECO rosette w/ 6X 4L bottles and SBE 19plusV2 CTD	
0.322" (8.18mm) A320327 armoured Rochester coax cable		Tow speed
<b>NOTE:</b> The Arctic Fox's 12" diameter drum core is smaller than this cable's minimum bend diameter.		
Up to 300m length	EdgeTech 4205 side scan sonar (with no accessories)	5 knots
	EdgeTech 4200-SP/MP side scan sonar (with no accessories)	
	EdgeTech 4125 side scan sonar (optionally with depressor wing OR magnetometer)	
	Klein S4900 side scan sonar (optionally with depressor wing OR magnetometer)	
	Klein M-AX View 600 (optionally with depressor wing OR magnetometer)	
	Klein 4K-SVY side scan sonar (optionally with depressor wing OR magnetometer)	
0.375" (9.5mm) EdgeTech lightweight tow cable		Tow speed
Up to 350m length	EdgeTech 4125 side scan sonar (optionally with depressor wing and/or magnetometer)	7 knots
	EdgeTech 4205 side scan sonar (optionally with depressor wing and/or magnetometer)	5 knots

# FEATURES AND OPTIONS

Drivetrain		Upgradable?
Motor	Baldor 3HP 1800RPM 182TC IP55 stainless steel 230VAC 3-ph motor	
Electric brake	Stearns 25ft-lb IP55 painted steel electric brake (*refurbished*)	
Gearbox	Grove Gear P7472 11.43:1 sealed aluminum inline gearbox	
Chain	#50 Tsubaki Neptune corrosion-resistant treated steel drive chains	
Sprockets	18:60 steel sprockets	
Bearings	Thermoplastic housings with steel bearing inserts	

Mechanical features included on winch		Upgradable?
Levelwind	Stainless steel diamond reversing screw mechanical levelwind system driven from drum by sprocket-and-chain drivetrain	
Dog clutch	Dog clutch integrated into drivetrain can be manually disengaged to allow the drum to freewheel for rapid payout or emergency manual hand crank recovery	
Drum disk brake	Drum includes manually-actuated anodized aluminum disk brake in addition to winch's electric brake for controlling drum speed during freewheeling and manual hand cranking	
Drum pin lock	Brake disk can have a pin inserted through holes around its edge to hard-lock the drum and prevent rotation	

Electrical features included on winch		Upgradable?
Winch input power	Winch requires 208-230VAC 1-phase power, 50 or 60Hz (specs calculated for nominal 60Hz input)	
Operation interface	Handheld wired remote spring-return joystick with E-stop, and local winch-mounted E-stop button	
Status indicators	Stack-light beacon with two status lights: Green = Winch is on and running, Red = Stopped with E-stop	
Cable lengths	3m (10ft) long power cable, 3m (10ft) long joystick cable	Yes <sup>1</sup>
Slip ring	6 conductor non-coax slip ring (max 10A 380V per conductor)	Yes <sup>2</sup>

## Available upgrade and add-on options

All options will incur additional costs

1. Cable length upgrade: [Extended cable lengths](#) available to suit site needs
2. Alternative slip rings: [Alternative slip rings](#) from A.G.O.'s line up can be installed instead
3. Wire counting system: [Winch-integrated encoder and PLC](#) to measure cable payout and line speed
4. Network control system: New "Phoenix" PLC system to facilitate [control of winch via a computer](#)